CLAIMS

1. A system comprising logic configured for:

    counting transitions between data on a bus and data to be put onto the bus;

    complementing the data to be put onto the bus where the counted transitions exceeds a threshold;

    putting complemented data on the bus where the threshold was exceeded; and

    putting un-complemented data on the bus where the threshold was not exceeded.

2. The system as recited in claim 1, wherein the logic configured for counting transitions comprises a ripple counter.

3. The system as recited in claim 1, wherein the logic configured for counting transitions comprises a binary tree.

4. The system as recited in claim 1, wherein the logic configured for counting transitions comprises a carry look-a-head counter.

5. The system as recited in claim 1, additionally comprising logic configured for setting the threshold at one-half of a width of the bus.

6. The system as recited in claim 1, additionally comprising logic configured for setting a signal to indicate complemented and un-complemented data.

7. The system as recited in claim 1, additionally comprising logic configured for setting a signal according to a number of transitions relative to the threshold.

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8. The system as recited in claim 1, additionally comprising logic configured for:

    obtaining data from the bus;

    checking a signal to determine if the data has been complemented; and

    where the data has been complemented, un-complementing the data.

9. A system comprising logic configured for:

    obtaining data from a data bus;

    checking a signal to determine if the data has been complemented; and

    where the data has been complemented, un-complementing the data.

10. A method of transmitting data, comprising:

    counting transitions between data on a bus and data to be put onto the bus;

    complementing the data to be put onto the bus where a number of transitions exceeds a threshold;

    putting complemented data on the bus where the threshold was exceeded ; and

    putting un-complemented data on the bus where the threshold was not exceeded.

11. The method as recited in claim 10, wherein counting the transitions comprises counting the transitions using a ripple counter.

12. The method as recited in claim 10, wherein counting the transitions comprises counting the transitions using a binary tree.

13. The method as recited in claim 10, wherein counting the transitions comprises counting the transitions using a carry look-a-head counter.

14.　The method as recited in claim 10, additionally comprising setting the threshold at one-half of a width of the bus.

15.　The method as recited in claim 10, additionally comprising setting a signal to indicate complemented and un-complemented data.

16.　The method as recited in claim 10, additionally comprising:

obtaining data from the bus;

checking a signal to determine if the data has been complemented; and

where the data has been complemented, un-complementing the data.

17.　A bus configured for low power consumption and low EMI emissions, comprising:

a transition counter, to count transitions between a first data transmission and a second data transmission and to compare the counted transitions to a threshold;

a data complement module, to complement the second data transmission where the threshold was exceeded;

a driver circuit to change voltages on data lines from the first data transmission to the second data transmission; and

a complement indicator, to operate a signal to indicate if the second data transmission is complemented.

18.　The bus of claim 17, wherein the transition counter comprises a ripple counter.

19.　The bus of claim 17, wherein the transition counter comprises a binary tree counter.

20.　The bus of claim 17, wherein the transition counter comprises a carry look-a-head counter.

21. The bus of claim 17, wherein output of the transition counter controls operation of the data complement module and the complement indicator.

5   22. The bus of claim 17, additional comprising:

a complement detector communicate to monitor the signal line; and

a data de-complementing module to de-complement the data, if indicated by the signal line.

10   23. The bus of claim 17, additional comprising:

a complement detector, to detected the signal indicating that the data transmitted is complemented.

24. The bus of claim 17, additional comprising:

15   a data de-complementing module, to reverse changes made by the data complement module.

25. A system for data transmission, comprising:

means for counting transitions between data on a bus and data to be

20   put onto the bus;

means for complementing the data to be put onto the bus where the counted transitions exceeds a threshold;

means for putting complemented data on the bus where the threshold was exceeded; and

25   means for putting un-complemented data on the bus where the threshold was not exceeded.

26. The system as recited in claim 25, wherein the means for counting transitions comprises a binary tree.

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27. The system as recited in claim 25, additionally comprising means for setting the threshold at one-half of a width of the bus.

28. The system as recited in claim 25, additionally comprising means for setting a signal to indicate complemented and un-complemented data.

29. The system as recited in claim 25, additionally comprising means for setting a signal according to a number of transitions relative to the threshold.

30. A processor-readable medium comprising processor-executable instructions for:

counting transitions between data on a bus and data to be put onto the bus;

complementing the data to be put onto the bus where the counted transitions exceeds a threshold;

putting complemented data on the bus where the threshold was exceeded; and

putting un-complemented data on the bus where the threshold was not exceeded.

31. The processor-readable medium as recited in claim 30, additionally comprising instructions for setting the threshold at one-half of a width of the bus.

32. The processor-readable medium as recited in claim 30, additionally comprising instructions for setting a signal to indicate complemented and un-complemented data.

33. The processor-readable medium as recited in claim 30, additionally comprising instructions for:

obtaining data from the bus;

checking a signal to determine if the data has been complemented; and

where the data has been complemented, un-complementing the data.

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34. The processor-readable medium as recited in claim 30, additionally comprising instructions for:

obtaining data from the bus;

checking a signal to determine if the data has been complemented; and

where the data has been complemented, un-complementing the data.

35. A processor-readable medium comprising processor-executable instructions for reading data from a bus, the processor-executable instructions comprising instructions for:

obtaining data from a data bus;

checking a signal to determine if the data has been complemented; and

where the data has been complemented, un-complementing the data.